

SPECIFICATION

(1) Please amend the amended penultimate paragraph, page 6, original lines 19-27 as follows:

As illustrated in Fig. 1, crude oil, gas and water from well 100 may be piped to separator 108 via inlet 116. Gas at wellhead pressures in separator 108 supplies the lift gas to be compressed in compressor 102, which may be used as lift gas or stored or sold as production gas, supply gas for pressure monitoring information, and fuel for power supply 106. Oil in separator 108 supplies heated oil for injection into well 100, crude oil produced for storage or sale, and coolant for compressor 102. Water in separator 108 supplies heated water for injection into well 100 and coolant for compressor 102. Liquids may be injected after adding chemicals via valve 118 and inlet 120. The transfer of the heat of compression from the gasses being compressed in compressor 102 to liquids mixed, for example after their introduction into compressor 102 via valve 118, with said gasses being compressed in compressor 102 ~~may be~~ is referred to herein as “internal thermodynamic exchange”. Power supply 106 supplies the power for pump 104, which moves the fluid that powers compressor 102. Compressor 102 compresses gas from the wellhead pressure to the pressure necessary for lifting liquids through well 100 and supplies heat to the surrounding liquids in separator 108. The transfer of the heat of compression from gasses being compressed in compressor 102 to external liquids and gasses, for example liquids and gasses in separator 108, may be referred to herein as “external thermodynamic exchange”. As used herein, “thermodynamically treated fluids” refers specifically to ~~The gasses and liquids that are heated and cooled by external and internal thermodynamic exchange as referred to herein as “thermodynamically treated fluids”.~~

(2) Please add the following paragraph to the end of the specification on page 19 following Example 11:

It should be apparent to those skilled in the art that features which have been described in relation to specific embodiments may be included in other embodiments, that the principles of the various methods of injection and recovery may be applied in other embodiments, and that mixed or unmixed gasses and liquids heated and cooled by other means well-known in the art may be injected. Modifications to the embodiments described will be apparent to those skilled in the art.